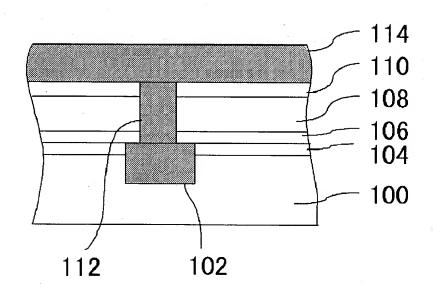


FIG. 1B



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FIG. 2A

118

116

113

110

108

112 (Plug-forming part)

(Non-plug-forming part)

FIG. 2B

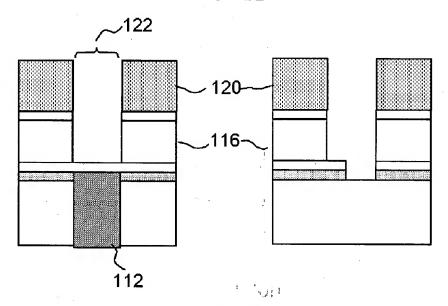
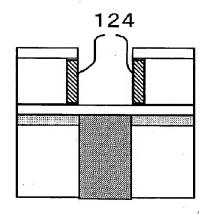
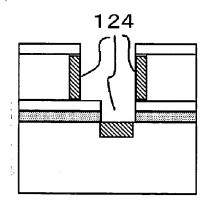


FIG. 2C





3/12 FIG. 3A

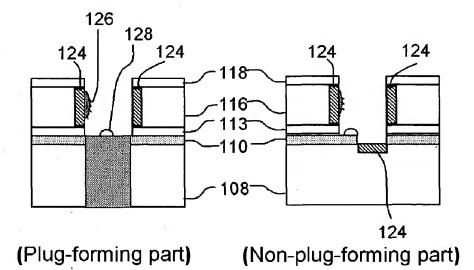


FIG. 3B

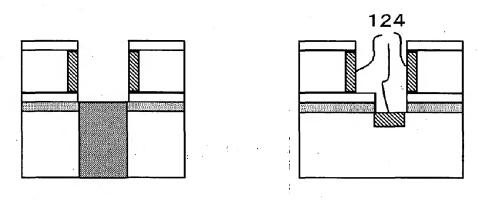
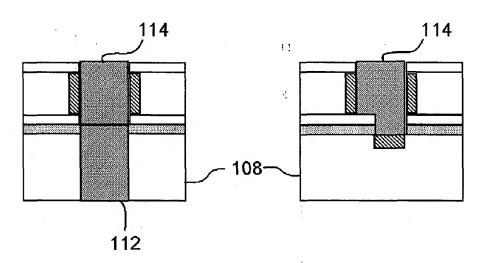
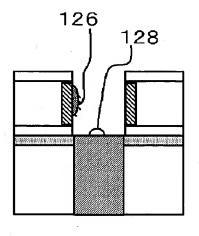


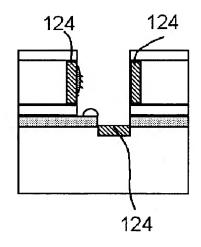
FIG. 3C



4/12 FIG. 4A

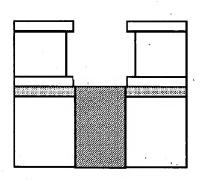


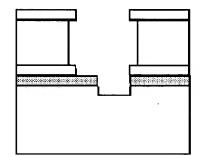
(Plug-forming part)



(Non-plug-forming part)

FIG. 4B





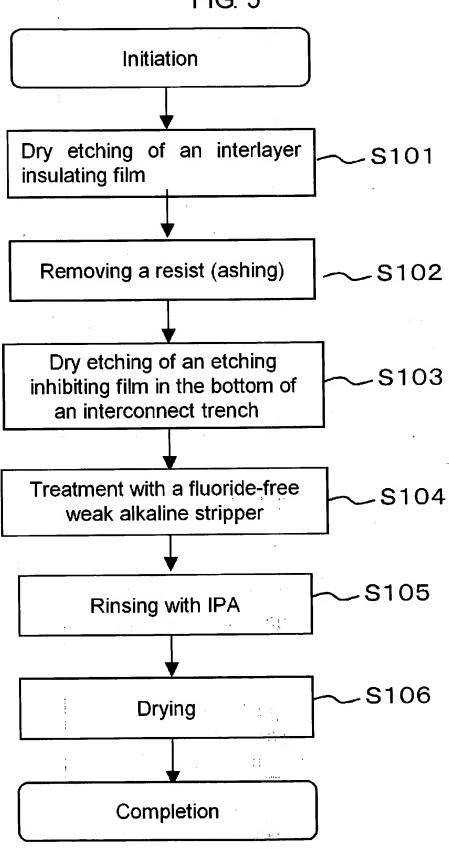


FIG. 6

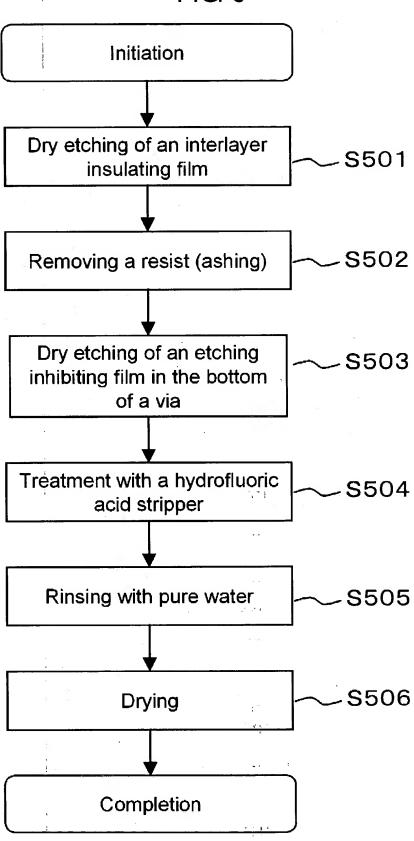
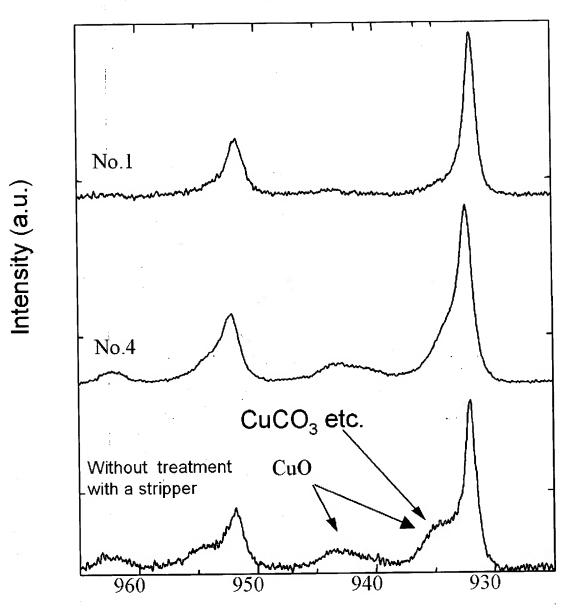


FIG. 7



Binding energy (eV)

8/12 FIG 8.

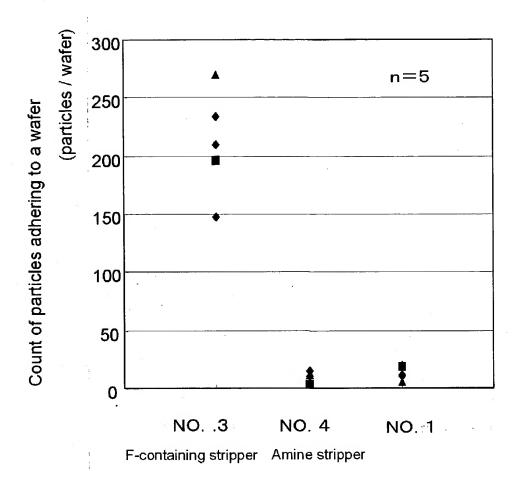
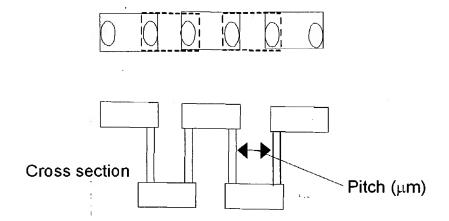
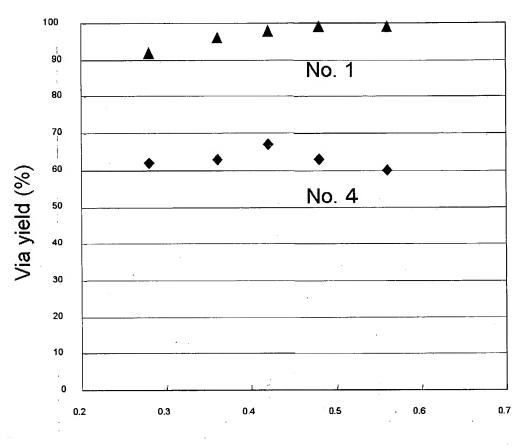


FIG. 9

Upper surface



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Pitch (µm)

10/12
FIG. 11A

118

116

113

110

108

FIG. 11B

132

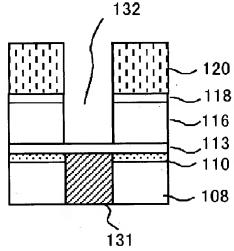
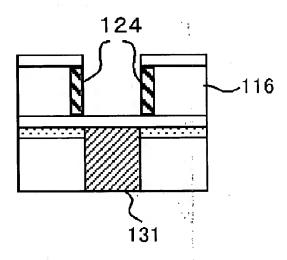


FIG. 11C



11/12 FIG. 12A

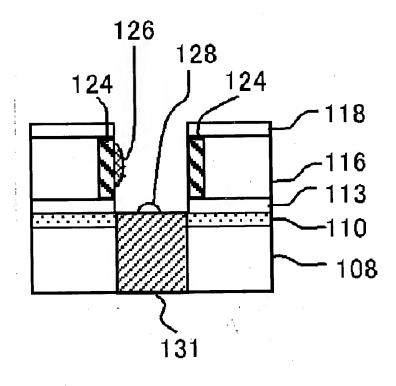
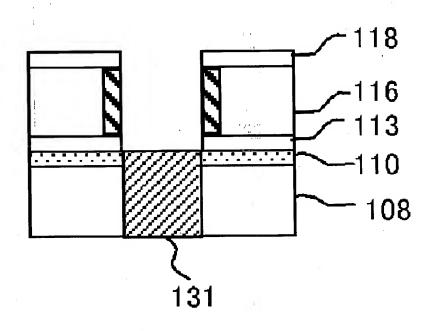


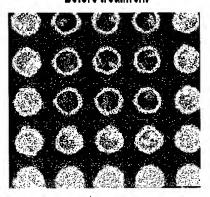
FIG. 12B



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FIG. 13

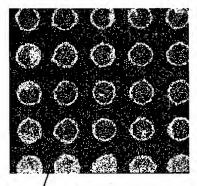
Before treatment



Remaining within the hole

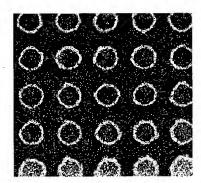


After treatment with Remover NO.4



Residues

After treatment with Remover NO.1



No residues